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DRAFT
BUILDING 386, 388, and 390 AREA
OUTLINE FOR ROUND 2 SCOPING MEETING

XRT - current
tenant
SFUND RECORDS CTR
2295478

A. Site History

The Buildings 386, 388, and 390 Area is located southeast of 12th Street between Railroad and Cedar avenues (see attached figure). The three buildings are part of a superstructure that was built in 1922. The superstructure has been used as a metalworking facility since its construction, although the metalworking tasks, machinery, and methods have periodically changed through the years. The site boundaries for the IR21 site and the Buildings 386, 388, and 390 Area are identical. A hazardous waste accumulation area (11-1) was located northwest of Building 388.

The focus of the IR21 investigation was an area of approximately 100 square feet located at the northwestern end of Building 386. This area, which was used as a forge shop, formerly contained two forge furnaces, two annealing furnaces, a heat treatment unit, two concrete pits or cooling vats, two aboveground oil quench tanks, and one aboveground water quench tank. Two additional quench tanks currently exist within the area investigated during IR21 activities. The existing quench tanks are located within 5-foot-deep concrete vaults, the sides of which extend approximately 2.5 feet above the concrete floor. Between 1987 and 1988, the two former concrete pits or cooling vats were removed and replaced with the existing quench tanks which were also used for cooling hot steel (one formerly contained oil and the other contained water). The former concrete pits or cooling vats were also reportedly used for coating chains with oil and lead-based paint. Operations within the Building 386 forge shop have historically included forging steel ship parts and preparing steel for hot forming, shearing, rolling, bending, and other forging activities conducted in the adjacent Buildings 388 and 390. Building 388 formerly housed a ship fitting shop and contains a plasma-arc-cutting-table. The cutting-table had an overflow-line that drained onto bare soil in Building 386. Building 390 formerly housed metalworking structural shops and metal mold and shape storage areas. Building 390 currently contains two presses: an 1,800-ton press in the southern portion of the building and a 1,000-ton press 400 feet northwest of the larger press. The metal presses are underlain by concrete and earthen vaults to depths of at least 10 feet bgs. The vaults under the presses contain standing water with an oily sheen. The floors of the buildings are predominantly concrete or wood block; however, the floor in the southeastern corner of the building is covered by steel grates underlain by concrete and earthen vaults. The vaults that underlie the steel grate floor may contain residual hydraulic oil.

The machines located in Buildings 386, 388, and 390 used recycled coolants and lubricants that were probably once PCB oils. Wastes generated and managed in the hazardous waste accumulation area include lubricants, cleaners, spent welding electrodes, scrap metals, and other miscellaneous wastes. The hazardous waste accumulation area was still operational in 1991. Former Mare Island employees report that liquid wastes generated in the shop did not exceed 300 gallons per year. In addition, most oils and lubricants were recycled.

The Buildings 386, 388, and 390 Area is located in Investigation Area C and is designated as an area for heavy industry. Groundwater is first encountered at approximately 2.5 feet bgs and flows towards the northeast.

B. Data Gaps

The data gaps identified in the FSAP were:

- Characterization of potential soil and groundwater contamination of the concrete and earthen vaults beneath the drill presses and the steel grate floor as a result of normal operations
- Characterization of potential soil and groundwater contamination beneath other parts of the buildings

C. Round 1 Sampling

Three Geoprobe borings (B386GB001 through B386GB003) were advanced to depths from 6 to 16 feet bgs inside Building 386 during Round 1 sampling (see attached figure). A total of six soil samples were collected, two samples from each boring. Two samples were collected between 0 and 0.5 feet bgs, three samples between 3.5 and 4.5 feet bgs, and one sample between 11.0 and 11.5 feet bgs. In addition, one grab groundwater sample was collected from each Geoprobe boring.

Two Geoprobe borings (B388GB001 and B388GB002) were advanced to a depth of approximately 8 feet bgs inside Building 388 during Round 1 sampling (see attached figure). Two soil samples were collected from boring B388GB001 between 3 to 4 feet bgs and 4 to 4.5 feet bgs. Low soil volume recovery resulted in no sample being collected from boring B388GB002. In addition, one grab groundwater sample was collected from each Geoprobe boring.

Eight Geoprobe borings (B390GB001 through B390GB008) were advanced to depths from 10 to 14 feet bgs inside Building 390 during Round 1 sampling (see attached figure). A total of 24 soil samples were collected. Two to four samples were collected from each boring. Soil samples were collected between 0 and 12 feet bgs. In addition, one grab groundwater sample was collected from each Geoprobe boring.

D. Round 1 Analytical Results

This section describes the significant analytical results of the non-aqueous (soil) followed by the results for aqueous (grab groundwater) samples taken at the Building 386, 388, and 390 Area.

Soil Samples

A statistical summary of detected analytes is presented in Table 1 and the detected analyte results are summarized in Table 2.

All soil samples were analyzed for metals, VOCs, SVOCs, pesticides, PCBs, and TPH-purgeables and TPH-extractables. The results of these analyses are presented below.

Metals

Antimony concentrations exceeded the residential PRG and ambient concentration (99th percentile) for Mare Island in two samples: B390GB007 (36.4 mg/kg) at 0 to 0.5 feet bgs and B390GB007 (39.1 mg/kg) at 0 to 0.5 feet bgs.

→ helpful
to sample;
next deeper
sample
Clear~

Beryllium concentrations exceeded the industrial PRG and ambient concentration (99th percentile) for Mare Island in two samples: B390GB007 (1.4 mg/kg) at 8 to 9 feet bgs and B390GB006 (2.9 mg/kg) at 0 to 0.5 feet bgs. Beryllium concentrations exceeded the residential PRG and ambient concentration (95th

percentile) for Mare Island in three samples: B388GB001 (1.1 mg/kg) at 3.0 to 4.0 feet bgs, B388GB001 (0.97 mg/kg) at 4.0 to 4.8 feet bgs, and B390GB001 (1.0 mg/kg) at 4.0 to 4.5 feet bgs.

The concentration of copper exceeded the residential PRG and ambient concentration (99th percentile) for Mare Island in one sample collected from boring B390GB007 (3,780 mg/kg) at a depth of 0 to 0.5 feet bgs.

Lead concentrations exceeded the industrial PRG and ambient concentration (99th percentile) for Mare Island in three samples: B390GB007 (2,340 mg/kg) at 0 to 0.5 feet bgs, B390GB008 (1,070 mg/kg) at 0 to 0.5 feet bgs, and B390GB006 (1,340 mg/kg) at 0 to 0.5 feet bgs. Lead concentrations exceeded the residential PRG and ambient concentration (99th percentile) for Mare Island in four samples: B386GB001 (616 mg/kg) at 0 to 0.5 feet bgs, B386GB003 (265 mg/kg) at 0 to 0.5 feet bgs, B390GB004 (633 mg/kg) at 5 to 6 feet bgs, and B390GB007 (282 mg/kg) at 8 to 9 feet bgs.

Manganese concentrations exceeded the residential PRG and ambient concentration (99th percentile) for Mare Island in three samples: B390GB004 (5,540 mg/kg) at 5 to 6 feet bgs, B390GB008 (5,510 mg/kg) at 0.5 to 0.5 feet bgs, and B390GB006 (3,960 mg/kg) at 0 to 0.5 feet bgs.

Nickel concentrations exceeded the residential PRG and ambient concentration (99th percentile) for Mare Island in seven samples: B386GB001 (921 mg/kg) at 0 to 0.5 feet bgs, B386GB003 (273 mg/kg) at 0 to 0.5 feet bgs, B390GB004 (638 mg/kg) at 5 to 6 feet bgs, B390GB006 (1,190 mg/kg) at 0 to 0.5 feet bgs, B390GB007 (338 mg/kg) at 8 to 9 feet bgs, B390GB008 (1,140 mg/kg) at 0 to 0.5 feet bgs, and B390GB007 (1,440 mg/kg) at 0 to 0.5 feet bgs.

Volatile Organic Compounds

VOCs were not detected above the screening criteria in soil samples collected at the site.

Semivolatile Organic Compounds

Benzo(a)pyrene was detected exceeding screening criteria in B390GB005 (0.06 mg/kg) at 2.0 to 3.0 feet bgs.

Pesticides

Aldrin was detected exceeding screening criteria in B390GB007 at 0 to 0.5 feet bgs at a concentration of 0.04 mg/kg.

Polychlorinated Biphenyls

Aroclor-1254 was detected above the screening criteria in B390GB007 at 0 to 0.5 feet bgs at a concentration of 2 mg/kg.

Petroleum Indicators

TPH-motor oil was detected above the screening criteria in five soil samples: B386GB001 (3,400 mg/kg) at 0 to 0.5 feet bgs, B386GB001 (3,500 mg/kg) at 3.5 to 4 feet bgs, B386GB003 (640 mg/kg) at 0 to 0.5 feet bgs, B390GB006 (550 mg/kg) at 0 to 0.5 feet bgs, and B390GB007 (1,800 mg/kg) at 0 to 0.5 feet bgs.

TPH-diesel was detected above the screening criteria in one soil sample collected from boring B386GB003 at 0 to 0.5 feet bgs at a concentration of 1,300 mg/kg.

Groundwater Samples

Detected analyte results for aqueous samples are summarized in Table 3.

All grab groundwater samples were analyzed for VOCs, SVOCs, and TPH-purgeables and TPH-extractables. The results of these analyses are presented below. In accordance with the FSAP, grab groundwater samples were not analyzed for metals, pesticides, or PCBs.

Volatile Organic Compounds

1,1,2,2-Tetrachloroethane was detected in the sample from B386GB001 at a concentration of 81 µg/L.

Benzene was detected in the sample from B388GB002 at a concentration of 0.7 µg/L.

Toluene was detected in grab groundwater samples collected from borings B388GB002, B390GB002 and B390GB004 at concentrations of 4 µg/L, 0.6 µg/L, and 1 µg/L, respectively.

Ethylbenzene was detected in the grab groundwater sample from B386GB003 at a concentration of 130 µg/L.

Total xylenes were detected in grab groundwater samples collected from borings B386GB001, B386GB003, B388GB002, and B390GB004, at concentrations of 35 µg/L, 830 µg/L, 1 µg/L, and 1 µg/L, respectively.

Acetone and methylene chloride were also detected in many of the grab groundwater samples but both compounds are common laboratory contaminants and are not expected to be of concern following incorporation of data validation results.

Semivolatile Organic Compounds

SVOCs were detected in the grab groundwater sample collected from borings B386GB001, B388GB001, B390GB002, B390GB003, B390GB004, B390GB005, and B390GB007.

SVOCs detected at B390GB007 included 2,4-dimethylphenol, 4-methylphenol, acenaphthalene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)flouranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, butylbenzylphthalate, carbazole, dibenzofuran, diethylphthalate, fluorene, di-n-octylphthalate, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, 2-methylnaphthalene, naphthalene, phenanthrene, phenol, and pyrene. The maximum SVOC detection was 2,4-dimethylphenol at a concentration of 74 µg/L.

Bis(2-ethylhexyl)phthalate was detected in grab groundwater samples from B390GB002, B390GB005, B390GB008, and B390GB002, but it is a common laboratory contaminant and is not expected to be of concern following incorporation of data validation results.

Petroleum Indicators

TPH-motor oil was detected in the grab groundwater samples collected from B386GB001, B386GB002, B390GB005, and B390GB008. The maximum concentration of TPH-motor oil was 40 mg/L at B386GB001.

TPH-diesel was detected in the grab groundwater sample collected from B386GB001, B386GB002, B390GB004, and B390GB005. The maximum concentration of TPH-diesel was 27 mg/L B386B001.

TPH-gasoline was detected in the grab groundwater sample collected from B390GB004 at a concentration of 0.2 mg/L.

E. Round 2 Recommendations

Based on the distribution of screening criteria exceedances in soil and grab groundwater samples collected during Round 1 activities, the following intrusive sampling is recommended for Round 2 (Figure 1):

- Four Geoprobe borings (borings A, B, C, and D), immediately adjacent to and surrounding B386GB001 to assess the extent of metals and TPH contamination in soil and VOC, SVOC, and TPH contamination in groundwater.
- Two Geoprobe borings (borings E and F), northeast and southwest of B386GB002 to assess the extent of TPH contamination in groundwater.
- Four Geoprobe borings (borings G, H, I, and J), immediately adjacent to and surrounding B386GB003 to assess the extent of metals and TPH contamination in soil and VOC contamination in groundwater.
- Four Geoprobe borings (borings K, L, M, and N), immediately adjacent to and surrounding B388GB001 to assess the extent of metals contamination in soil and SVOC contamination in groundwater.
- Four Geoprobe borings (borings O, P, Q, and R), immediately adjacent to and surrounding B388GB002 to assess the VOC contamination in groundwater and address the soil data gap at this location.
- Four Geoprobe borings (borings ~~S, T, U, and V~~), immediately adjacent to and surrounding B390GB001 to assess the extent of metals contamination in soil and address the groundwater data gap regarding SVOCs and TPH at this location.
- Four Geoprobe borings (borings W, X, Y, and Z), immediately adjacent to and surrounding B390GB002 to assess the extent of VOC and SVOC contamination in groundwater.
- Six Geoprobe borings (borings AA through FF), immediately adjacent to and surrounding B390GB003 and B390GB004 to assess the extent of metals contamination in soil and VOC, SVOC, and TPH contamination in groundwater.
- Nine Geoprobe borings (borings GG through OO) between and around B390GB005, B390GB006, B390GB007, and B390GB008 to assess the extent of metals, SVOC, pesticide, PCB, and TPH contamination in soil and SVOC and TPH contamination in groundwater.

The following table summarizes the proposed sampling and analytical scheme for the Round 2 investigation at this site.

Boring ID	Round 2 IDs (Figure 1)	Soil Sampling Scheme	Grab GW	Analyses
B386GB001	A, B, C, and D	0 to 0.5 feet bgs, 2 to 2.5 feet bgs, 4 to 4.5 feet bgs, 6 to 6.5 feet bgs, 8 to 8.5 feet bgs	Yes	Soil – metals, TPH GW – VOCs, SVOCs, TPH
B386GB002	E and F	None	Yes	GW – VOCs
B386GB003	G, H, I, and J	0 to 0.5 feet bgs, 2 to 2.5 feet bgs, 4 to 4.5 feet bgs	Yes	Soil – metals, TPH GW – VOCs, TPH
B388GB001	K, L, M, and N	0 to 0.5 feet bgs, 2 to 2.5 feet bgs, 4 to 4.5 feet bgs, 6 to 6.5 feet bgs, 8 to 8.5 feet bgs	Yes	Soil – metals GW – SVOCs
B388GB002	O, P, Q, and R	0 to 0.5 feet bgs, 2 to 2.5 feet bgs, 4 to 4.5 feet bgs, 6 to 6.5 feet bgs, 8 to 8.5 feet bgs, 10 to 10.5 feet bgs	Yes	Soil – metals, VOCs, SVOCs, pesticides, PCBs, TPH GW – VOCs
B390GB001	S, T, U, and V	0 to 0.5 feet bgs, 2 to 2.5 feet bgs, 4 to 4.5 feet bgs, 6 to 6.5 feet bgs, 8 to 8.5 feet bgs	Yes	Soil – metals GW – SVOCs, TPH
B390GB002	W, X, Y, and Z	None	Yes	GW – VOCs, SVOCs
B390GB003 B390GB004	AA through FF	5 to 5.5 feet bgs, 7 to 7.5 feet bgs, 9 to 9.5 feet bgs	Yes	Soil – metals GW – VOCs, SVOCs, TPH
B390GB005 B390GB006 B390GB007 B390GB008	GG through OO	0 to 0.5 feet bgs, 2 to 2.5 feet bgs, 4 to 4.5 feet bgs, 6 to 6.5 feet bgs, 8 to 8.5 feet bgs, 10 to 10.5 feet bgs	Yes	Soil – metals, SVOCs, pesticides, PCBs, TPH GW – VOCs, SVOCs, TPH

Five-point composite soil samples will be collected from 0 to 0.5 feet bgs when boring locations are not covered with asphalt or concrete. In addition to the samples specified, other samples will be collected at significant changes in lithology or areas of staining, if encountered.

→ already
know need
muds

Step-outs > 20 feet away
from samples

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3/3/98

Boring ID	Round 2 IDs (Figure 1)	Soil Sampling Scheme	Grab GW	Analyses
B386GB001	A, B, C, and D	0 to 0.5 feet bgs, 2 to 2.5 feet bgs, 4 to 4.5 feet bgs, 6 to 6.5 feet bgs, 8 to 8.5 feet bgs	Yes	Soil – metals, TPH , VOCs GW – VOCs, SVOCs, TPH
B386GB002	E and F	None	Yes	GW – VOCs
B386GB003	G, H, I, and J	0 to 0.5 feet bgs, 2 to 2.5 feet bgs, 4 to 4.5 feet bgs	Yes	Soil – metals, TPH GW – VOCs, TPH
B388GB001	K, L, M, and N	0 to 0.5 feet bgs, 2 to 2.5 feet bgs, 4 to 4.5 feet bgs, 6 to 6.5 feet bgs, 8 to 8.5 feet bgs	Yes	Soil – metals GW – SVOCs
B388GB002	O, P, Q, and R	0 to 0.5 feet bgs, 2 to 2.5 feet bgs, 4 to 4.5 feet bgs, 6 to 6.5 feet bgs, 8 to 8.5 feet bgs, 10 to 10.5 feet bgs	Yes No	Soil – metals, VOCs, SVOCs, pesticides, PCBs, TPH GW – VOCs
B390GB001	S, T, U, and V	0 to 0.5 feet bgs, 2 to 2.5 feet bgs, 4 to 4.5 feet bgs, 6 to 6.5 feet bgs, 8 to 8.5 feet bgs None	Yes	Soil – metals GW – SVOCs, TPH
B390GB002	W, X, Y, and Z	None	Yes	GW – VOCs, SVOCs
B390GB003	AA through FF	5 to 5.5 feet bgs, 7 to 7.5 feet bgs	Yes	Soil – metals
B390GB004	BB, CC, and FF	9 to 9.5 feet bgs		GW – VOCs, SVOCs, TPH
B390GB005	GG through OO	0 to 0.5 feet bgs, 2 to 2.5 feet bgs, 4 to 4.5 feet bgs, 6 to 6.5 feet bgs, 8 to 8.5 feet bgs, 10 to 10.5 feet bgs	Yes	Soil – metals, SVOCs, pesticides, PCBs, TPH
B390GB006				GW – VOCs, SVOCs, TPH
B390GB007				
B390GB008				

Five-point composite soil samples will be collected from 0 to 0.5 feet bgs when boring locations are not covered with asphalt or concrete. In addition to the samples specified, other samples will be collected at significant changes in lithology or areas of staining, if encountered.

Antimony
 Used in
 fire retardant
 materials
 Beryllium
 used in lighter
 alloys
 (e.g. aircraft
 manufacturing)

TABLE 1

BUILDINGS 386, 388, AND 390 STATISTICAL SUMMARY OF SOIL ANALYSES

ROUND 1 - GROUP II/III INVESTIGATION

MARE ISLAND, CALIFORNIA

** UNVALIDATED DATA

Analyte	Number of Detections/Analyses	Maximum Detected Conc. (mg/kg)	Average of Detected Conc. (mg/kg)	Number of Samples With Conc. Greater than the PRG or Group II/III Screening Value (mg/kg) ¹	Number of Samples With Conc. Greater Than PRG and the 95th Ambient ¹	Number of Discrete Loc. With Sample Conc. Greater Than PRG and the 95th Ambient ¹	Number of Samples With Conc. Greater Than PRG and the 99th Ambient ¹	Number of Discrete Loc. With Sample Conc. Greater Than PRG and the 99th Ambient ¹	PRG or Group II/III Screening Value (mg/kg) ¹	95th Ambient Value (mg/kg)	99th Ambient Value (mg/kg)
METALS											
ALUMINUM	7/7	31,000	19,000	0	0	0	0	0	77,000	35,000	42,000
ANTIMONY	5/7	1	0.8	0	0	0	0	0	31	8.5	12
ARSENIC	7/7	17	10	7	0	0	0	0	0.38	36	44
BARIUM	7/7	340	150	0	NA	0	NA	0	5,300	NA	NA
BERYLLIUM	7/7	1	0.8	7	2	1	0	0	0.14	0.9	1.1
CADMIUM	2/7	2	2	0	0	0	0	0	9	5.2	5.6
CALCIUM	7/7	23,000	7,700	NP	NE	NE	NE	NE	NP	NA	NA
CHROMIUM	7/7	88	71	0	0	0	0	0	77,000	140	160
COBALT	7/7	20	15	0	NA	0	NA	0	4,600	NA	NA
COPPER	7/7	1,200	260	0	0	0	0	0	2,800	120	150
IRON	7/7	41,000	31,000	NP	NE	NE	NE	NE	NP	NA	NA
LEAD	7/7	620	170	2	2	2	2	2	242	59	59
MAGNESIUM	7/7	9,700	6,700	NP	NE	NE	NE	NE	NP	NA	NA
MANGANESE	7/7	940	410	0	0	0	0	0	3,200	1,600	2,400
MERCURY	7/7	0.9	0.5	0	0	0	0	0	23	2	10
MOLYBDENUM	7/7	59	38	0	NA	0	NA	0	380	NA	NA
NICKEL	7/7	920	220	2	2	2	2	2	150	130	150
POTASSIUM	7/7	3,300	2,100	NP	NE	NE	NE	NE	NP	NA	NA
SELENIUM	0/7	ND	ND	0	NA	0	NA	0	380	NA	NA
SILVER	5/7	3	2	0	NA	0	NA	0	380	NA	NA
SODIUM	7/7	5,200	2,800	NP	NE	NE	NE	NE	NP	NA	NA
THALLIUM	6/7	3	1	0	NA	0	NA	0	5.4	NA	NA
VANADIUM	7/7	100	71	0	0	0	0	0	540	190	220
ZINC	7/7	900	300	0	0	0	0	0	23,000	230	270
VOLATILE ORGANIC COMPOUNDS											
2-BUTANONE	1/7	0.02	0.02	0	NA	0	NA	0	7,100	NA	NA
ACETONE	7/7	0.2	0.09	0	NA	0	NA	0	2,100	NA	NA
ETHYLBENZENE	2/7	0.08	0.06	0	NA	0	NA	0	230	NA	NA
METHYLENE CHLORIDE	7/7	0.1	0.05	0	NA	0	NA	0	7.8	NA	NA
TOLUENE	2/7	0.002	0.002	0	NA	0	NA	0	790	NA	NA
XYLENE (TOTAL)	2/7	0.6	0.4	0	NA	0	NA	0	320	NA	NA
SEMOVOLATILE ORGANIC COMPOUNDS											
BIS(2-ETHYLHEXYL)PHTHALATE	4/8	8	4	0	NA	0	NA	0	32	NA	NA

BUILDINGS 386, 388, AND 390 STATISTICAL SUMMARY OF SOIL ANALYSES
ROUND 1 - GROUP II/III INVESTIGATION
MARE ISLAND, CALIFORNIA

** UNVALIDATED DATA

Analyte	Number of Detections/Analyses	Maximum Detected Conc. (mg/kg)	Average of Detected Conc. (mg/kg)	Number of Samples With Conc. Greater than the PRG or Group II/III Screening Value (mg/kg) ¹	Number of Samples With Conc. Greater Than PRG and the 95th Ambient ¹	Number of Discrete Loc. With Sample Conc. Greater Than PRG and the 95th Ambient ¹	Number of Samples With Conc. Greater Than PRG and the 99th Ambient ¹	Number of Discrete Loc. With Sample Conc. Greater Than PRG and the 99th Ambient ¹	PRG or Group II/III Screening Value (mg/kg) ¹	95th Ambient Value (mg/kg)	99th Ambient Value (mg/kg)
SEMOVOLATILE ORGANIC COMPOUNDS											
DI-N-BUTYLPHthalATE PHENOL	2/8 2/8	0.09 0.2	0.07 0.2	0 0	NA NA	0 0	NA NA	0 0	6,500 39,000	NA NA	NA NA
PESTICIDES/PCBs											
4,4'-DDD 4,4'-DDE 4,4'-DDT ALDRIN	3/8 2/8 3/8 2/8	0.03 0.01 0.07 0.01	0.02 0.007 0.03 0.006	0 0 0 0	NA NA NA NA	0 0 0 0	NA NA NA NA	0 0 0 0	1.9 1.3 1.3 0.026	NA NA NA NA	NA NA NA NA
ALPHA-CHLORDANE AROCOLOR-1260 DELTA-BHC ENDOSULFAN II	2/8 1/8 2/8 1/8	0.04 0.006 0.002 0.01	0.02 0.006 0.002 0.01	0 0 NP 0	NA NA NE NA	0 0 NE 0	NA NA NE NA	0 0 NE 0	0.34 1 NP 390	NA NA NA NA	NA NA NA NA
ENDOSULFAN SULFATE ENDRIN ENDRIN KETONE GAMMA-CHLORDANE	2/8 1/8 2/8 3/8	0.02 0.002 0.02 0.03	0.01 0.002 0.01 0.01	0 0 0 0	NA NA NA NA	0 0 0 0	NA NA NA NA	0 0 0 0	390 20 20 0.34	NA NA NA NA	NA NA NA NA
HEPTACHLOR HEPTACHLOR EPOXIDE METHOXYCHLOR	3/8 3/8 1/8	0.03 0.009 0.03	0.01 0.006 0.03	0 0 0	NA NA NA	0 0 0	NA NA NA	0 0 0	0.099 0.049 330	NA NA NA	NA NA NA
PCBs											
TOTAL PCBs	1/8	0.006	0.006	0	NA	0	NA	0	1	NA	NA
PETROLEUM INDICATORS											
DIESEL RANGE MOTOR OIL RANGE	2/8 5/7	1,300 3,500	700 1,500	1 3	NA NA	1 2	NA NA	1 2	400 400	NA NA	NA NA

Notes:

1. If no ambient value exists, the number of discrete locations with sample concentrations greater than the PRG is shown.

2. Group II/III screening criteria are shown for lead, PCBs, and TPH only.

mg/kg = milligrams per kilogram

PRG = U.S. EPA preliminary remediation goal for residential use (EPA 1996).

**BUILDINGS 386, 388, AND 390 STATISTICAL SUMMARY OF SOIL ANALYSES
ROUND 1 - GROUP II/III INVESTIGATION ** UNVALIDATED DATA
MARE ISLAND, CALIFORNIA**

Notes (continued):

Ambient = Estimated ambient metal concentrations in fill soils.

ND = Not detected

NP = No PRG has been established.

NA = No ambient limit has been established.

NE = No PRG or ambient limit has been established.

Inorganic results less than 10 are reported to two significant figures, and results greater than 10 are reported to three significant figures.

Organic results less than 10 are reported to one significant figure, and results greater than 10 are reported to two significant figures.

TABLE 2

BUILDINGS 386, 388, AND 390 SUMMARY OF ANALYTICAL RESULTS FOR NONAQUEOUS SAMPLES
 ROUND 1 - GROUP II AND III INVESTIGATION
 MARE ISLAND, CALIFORNIA

*** UNVALIDATED DATA

Sample Location ID	B386GB001	B386GB001	B386GB002	B386GB002	B386GB003	B386GB003	B386GB003	B388GB001	B388GB001	B390GB001	B390GB001	B390GB002
Sample Depth (feet BGS)	0.0 - 0.5	3.5 - 4.0	3.5 - 4.0	11.0 - 11.5	0.0 - 0.5	4.0 - 4.5	12.0 - 12.0	3.0 - 4.0	4.0 - 4.8	3.0 - 4.0	4.0 - 5.0	3.0 - 4.0
Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	WATER	SOIL	SOIL	SOIL	SOIL	SOIL
METALS (mg/kg)												
ALUMINUM	7,550	NA	22,100	10,800	8,630	24,900	NA	30,700	28,000	31,500	37,700 *	23,500
ANTIMONY	1.1	NA	--	--	0.72	0.76	NA	0.73	0.59	1.2	1.0	1.5
ARSENIC	7.9 1	NA	17.4 1	7.6 1	5.5 1	10.7 1	NA	11.6 1	11.1 1	7.1 1	13.3 1	15.0 1
BARIUM	337	NA	68.9	194	146	141	NA	85.3	82.9	76.0	94.9	71.7
BERYLLIUM	0.65	NA	0.69	0.61	0.45	0.85	NA	1.1 *	0.97 *	0.89	1.0 *	0.69
CADMUM	1.8	NA	--	--	2.0	--	NA	--	--	--	--	--
CALCIUM	10,000	NA	2,850	22,800	6,620	4,920	NA	3,460	3,410	3,270	3,530	3,080
CHROMIUM	88.3	NA	71.2	23.2	58.3	84.7	NA	86.9	84.2	96.9	94.4	76.9
COBALT	13.0	NA	16.2	9.7	9.8	18.6	NA	19.9	18.9	20.2	23.5	19.6
COPPER	1,210 *α	NA	55.1	18.7	354 *α	88.5	NA	60.8	54.1	50.0	58.9	61.5
IRON	26,400	NA	30,500	12,500	29,800	39,400	NA	40,600	41,000	41,800	48,100	35,500
LEAD	616 *α	NA	24.3	13.3	265 *α	194 *α	NA	34.9	30.0	19.5	60.5 *α	38.2
MAGNESIUM	3,790	NA	8,120	3,180	3,620	9,030	NA	9,310	9,720	10,400	9,960	8,490
MANGANESE	326	NA	264	149	296	942	NA	438	455	624	644	365
MERCURY	0.90	NA	0.64	0.17	0.21	0.55	NA	0.66	0.46	0.45	0.68	0.49
MOLYBDENUM	58.9	NA	27.8	9.5	46.3	42.8	NA	38.4	39.6	39.4	45.6	42.7
NICKEL	921 *α	NA	66.5	29.5	273 *α	91.2	NA	84.4	85.5	84.7	84.6	78.1
POTASSIUM	919	NA	2,790	2,000	997	2,000	NA	3,010	3,260	3,040	3,160	2,620
SILVER	2.6	NA	0.70	0.54	--	--	NA	2.0	1.9	1.6	1.9	0.95
SODIUM	2,000	NA	2,930	5,220	3,640	491	NA	2,680	2,800	2,460	2,450	2,360
THALLIUM	0.46	NA	0.87	--	0.73	1.5	NA	1.2	2.5	2.4	1.6	2.1
VANADIUM	38.4	NA	91.8	50.2	34.3	88.8	NA	101	93.7	78.2	105	95.5
ZINC	899 *α	NA	84.6	22.0	656 *α	231 *	NA	104	87.3	120	130	96.8
VOLATILE ORGANIC COMPOUNDS (mg/kg)												
2-BUTANONE	NA	--	0.02	--	--	--	NA	--	--	--	--	--
ACETONE	NA	0.05	0.1	0.04	0.02	0.1	NA	0.2	0.1	0.2	0.07	0.2
ETHYLBENZENE	NA	--	--	--	0.03	0.08	NA	--	--	--	--	--
METHYLENE CHLORIDE	NA	0.04	0.05	0.05	0.03	0.1	NA	0.04	0.02	0.02	0.008 J	0.07
TOLUENE	NA	0.001 J	--	--	0.002 J	--	NA	--	--	--	--	--
XYLENE (TOTAL)	NA	--	--	--	0.2	0.6	NA	--	--	--	--	--
SEMIVOLATILE ORGANIC COMPOUNDS (mg/kg)												
BIS(2-ETHYLHEXYL)PHTHALATE	6 J	8	--	0.1 J	0.9 J	--	NA	--	0.05 J	--	0.08 J	
DI-N-BUTYLPHthalate	--	--	--	0.04 J	--	--	NA	0.09 J	0.2 J	0.08 J	0.07 J	
PHENOL	--	--	--	0.1 J	--	--	NA	0.2 J	--	0.3 J	0.2 J	0.2 J
TOTAL SVOCs	6 J	8	--	0.3 J	0.9 J	--	NA	0.3 J	--	0.5 J	0.3 J	0.3 J
PESTICIDES (mg/kg)												
4,4'-DDD	0.009	0.03	--	--	0.008	--	NA	--	--	--	--	--
4,4'-DDE	0.004	0.01	--	--	--	--	NA	--	--	--	--	--
4,4'-DDT	0.02	0.07	--	--	0.004	--	NA	--	--	--	--	--
ALDRIN	--	--	--	--	0.01	--	NA	0.0009	--	0.002	0.001	--
ALPHA-CHLORDANE	0.01	0.04	--	--	--	--	NA	--	--	--	--	--

Notes to table on page T-6

BUILDINGS 386, 388, AND 390-SUMMARY OF ANALYTICAL RESULTS FOR NONAQUEOUS SAMPLES
 ROUND 1 - GROUP II AND III INVESTIGATION
 MARE ISLAND, CALIFORNIA

*** UNVALIDATED DATA

Sample Location ID	B386GB001	B386GB001	B386GB002	B386GB002	B386GB003	B386GB003	B386GB003	B388GB001	B388GB001	B390GB001	B390GB001	B390GB002	
Sample Depth (feet BGS)	0 0 - 0.5	3.5 - 4.0	3 5 - 4.0	11.0 - 11.5	0.0 - 0 5	4 0 - 4 5	12 0 - 12.0	3.0 - 4.0	4.0 - 4 8	3.0 - 4.0	4.0 - 5.0	3.0 - 4.0	
Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	WATER	SOIL	SOIL	SOIL	SOIL	SOIL	
PESTICIDES (mg/kg)													
DELTA-BHC	--	0.002	--	--	--	--	--	NA	0.001	--	0.006	0.003	0.004
ENDOSULFAN II	--	0.01	--	--	--	--	--	NA	--	--	--	--	--
ENDOSULFAN SULFATE	0 008	0.02	--	--	--	--	--	NA	--	--	--	--	--
ENDRIN	--	--	--	--	0.002	--	--	NA	--	--	--	--	--
ENDRIN KETONE	0.009	0.02	--	--	--	--	--	NA	--	--	--	--	--
GAMMA-CHLORDANE	0.008	0.03	--	--	0.005	--	--	NA	--	--	--	--	--
HEPTACHLOR	0.008	0.03	--	--	0.006	--	--	NA	--	--	--	--	--
HEPTACHLOR EPOXIDE	0.003	0.006	--	--	0.009	--	--	NA	--	--	--	--	--
METHOXYCHLOR	--	0.03	--	--	--	--	--	NA	--	--	--	--	--
PCBs (mg/kg)													
AROCLOL-1254	--	--	--	--	--	--	--	NA	--	--	0.006 J	--	0.004 J
AROCLOL-1260	--	--	--	--	--	--	--	NA	--	--	0.006 J	--	--
TOTAL PCBs	--	--	--	--	--	--	--	NA	--	--	0.006 J	--	0.004 J
PETROLEUM INDICATORS (mg/kg)													
DIESEL RANGE	--	--	--	--	--	--	--	--	--	--	--	--	--
MOTOR OIL RANGE	3,400 Y	3,500 Y	28 JY	--	1,300 Y 640 Y	99 Y 49 Y	0 9 J 0 9 J	--	--	--	--	--	--

Notes to table on page T-6.

BUILDINGS 386, 388, AND 390 SUMMARY OF ANALYTICAL RESULTS FOR NONAQUEOUS SAMPLES
 ROUND 1 - GROUP II AND III INVESTIGATION
 MARE ISLAND, CALIFORNIA

*** UNVALIDATED DATA

Sample Location ID	B390GB003	B390GB003	B390GB003	B390GB003	B390GB004	B390GB004	B390GB004	B390GB005	B390GB005	B390GB005	B390GB006	B390GB006
Sample Depth (feet BGS)	2.0 - 3.0	4.0 - 5.0	5.0 - 6.0	11.5 - 12.0	3.0 - 4.0	5.0 - 6.0	11.0 - 12.0	2.0 - 3.0	4.0 - 5.0	11.0 - 12.0	2.0 - 3.0	4.0 - 5.0
Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
METALS (mg/kg)												
ALUMINUM	6,890	7,650	12,600	9,900	9,240	36,900 *	22,700	928	1,080	1,110	11,300	21,100
ANTIMONY	--	--	0.56	--	0.48	6.5	11	14.2 *α	21.7 *α	21.0 *α	0.76	1.3
ARSENIC	3.0 1	4.1 1	6.4 1	8.7 1	4.6 1	9.1 1	4.8 1	2.0	1.3	0.78	4.3 1	17.2 1
BARIUM	64 6	115.	133	218	134	237	136	14.9	15.1	14.5	94.5	87.2
BERYLLIUM	0.31	0.35	0.61	0.64	0.49	0.90	0.67	--	--	--	0.39	0.62
CADMIUM	--	--	--	--	--	--	--	1.0	1.8	1.6	--	--
CALCIUM	1,850	2,210	3,670	2,450	1,440	44,600	2,900	582	2,180	896	13,500	3,570
CHROMIUM	11.7	12.4	37.6	19.4	17.4	494 *α	64.3	76.3	73.6	78.5	42.0	73.3
COBALT	6.1	10.2	13.4	10.8	7.0	20.6	19.0	1.1	--	1.6	6.0	19.5
COPPER	7.6	10.5	34.4	17.9	14.9	919 *α	52.6	49.6	42.2	49.1	32.2	76.4
IRON	14,600	16,400	21,100	22,400	18,400	80,600	32,400	3,860	3,890	4,470	19,200	30,600
LEAD	3.7	4.7	33.5	7.9	7.8	633 *α	67.8 *α	226 *α	202 *α	242 *α	48.9	108 *α
MAGNESIUM	3,560	4,200	4,710	4,440	3,030	6,730	9,440	429	503	540	2,590	8,930
MANGANESE	134	214	341	209	150	5,540 *α	208	29.4	87.0	122	244	482
MERCURY	0.14	0.13	0.19	0.17	--	0.46	0.49	0.27	1.0	0.60	0.25	0.66
MOLYBDENUM	17.5	19.3	26.3	26.2	22.3	128	37.9	3.9	3.8	4.7	21.8	33.4
NICKEL	9.5	21.1	38.8	20.7	13.0	638 *α	79.3	7.2	7.3	9.7	37.8	70.4
POTASSIUM	1,410	1,860	1,650	2,190	1,300	5,340	3,460	227	253	282	982	3,050
SILVER	0.48	0.88	0.90	0.86	0.48	3.2	0.70	--	--	0.36	0.84	0.88
SODIUM	480	358	1,870	418	500	3,040	4,050	151	181	199	1,330	1,890
THALLIUM	--	--	0.86	0.42	0.73	--	1.7	0.40	0.44	--	0.65	0.69
VANADIUM	24.5	27.8	55.3	37.8	36.8	87.7	73.2	3.0	2.9	3.2	35.5	92.4
ZINC	38.7	50.8	69.8	59.0	38.6	1,730 *α	119	801 *α	812 *α	919 *α	131	152
VOLATILE ORGANIC COMPOUNDS (mg/kg)												
2-BUTANONE	--	--	--	--	--	--	0.02	--	--	--	--	--
ACETONE	--	0.03	0.06	0.03	0.02	0.3	0.2	0.02	--	--	--	0.3
BROMOMETHANE	--	--	--	--	--	--	--	--	--	--	0.005 J	--
METHYLENE CHLORIDE	0.007 J	0.02	0.01 J	0.03	0.06	0.05	0.09	0.04	0.01	0.05	0.01	0.07
SEMICVOLATILE ORGANIC COMPOUNDS (mg/kg)												
2,4-DIMETHYLPHENOL	--	--	--	--	--	0.08 J	--	--	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--	--	0.05 J	--	--	--	--	--	--
4-METHYLPHENOL	--	--	--	--	--	0.2 J	--	--	--	--	--	--
ANTHRAHCENE	--	--	--	--	--	0.1 J	--	--	--	--	--	--
BENZO(A)ANTHRACENE	--	--	--	--	--	--	--	0.1 J	0.3 J	--	--	--
BENZO(A)PYRENE	--	--	--	--	--	--	--	0.06 J	--	--	--	--
BENZO(B)FLUORANTHENE	--	--	--	--	--	--	--	0.1 J	0.3 J	--	--	--
BENZO(G,H,I)PERYLENE	--	--	--	--	--	--	--	0.06 J	--	--	--	--
BENZO(K)FLUORANTHENE	--	--	--	--	--	--	--	0.04 J	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	0.09 J	0.1 J	0.05 J	0.1 J	0.05 J	0.9	--	0.06 J	--	0.7 J	0.06 J	--
CHRYSENE	--	--	--	--	--	--	--	0.09 J	0.7 J	0.4 J	--	--
DI-N-BUTYLPHthalate	--	--	0.09 J	--	--	--	0.1 J	--	--	--	--	--
DIETHYLPHthalate	--	0.06 J	--	0.1 J	--	--	--	--	--	--	--	--

Notes to table on page T-6.

BUILDINGS 386, 388, AND 390 SUMMARY OF ANALYTICAL RESULTS FOR NONAQUEOUS SAMPLES
 ROUND 1 - GROUP II AND III INVESTIGATION
 MARE ISLAND, CALIFORNIA

*** UNVALIDATED DATA

Sample Location ID	B390GB003	B390GB003	B390GB003	B390GB003	B390GB004	B390GB004	B390GB004	B390GB005	B390GB005	B390GB005	B390GB006	B390GB006
Sample Depth (feet BGS)	2.0 - 3.0	4.0 - 5.0	5.0 - 6.0	11.5 - 12.0	3.0 - 4.0	5.0 - 6.0	11.0 - 12.0	2.0 - 3.0	4.0 - 5.0	11.0 - 12.0	2.0 - 3.0	4.0 - 5.0
Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
SEMITOLATILE ORGANIC COMPOUNDS (mg/kg)												
FLUORANTHENE	--	--	--	--	--	0.07 J	--	0.2 J	0.6 J	0.4 J	--	--
INDENO(1,2,3-CD) PYRENE	--	--	--	--	--	--	0.05 J	--	--	--	--	--
NAPHTHALENE	--	--	--	--	--	0.09 J	0.3 J	--	--	--	--	--
PHENANTHRENE	--	--	--	--	--	--	0.09 J	--	--	--	--	--
PHENOL	--	--	0.3 J	--	--	0.1 J	--	--	--	--	--	--
PYRENE	--	--	--	0.1 J	--	--	--	0.2 J	0.8 J	--	--	--
TOTAL SVOCs	0.09 J	0.2 J	0.4 J	0.4 J	0.05 J	2 J	0.4 J	1 J	3 J	2 J	0.06 J	--
PESTICIDES (mg/kg)												
4,4'-DDD	--	--	--	--	--	0.001	--	--	--	0.006	--	--
4,4'-DDE	--	--	--	--	--	--	0.001	--	--	--	--	--
4,4'-DDT	--	--	--	--	--	0.001	--	0.006	--	--	--	--
ALDRIN	--	--	--	--	--	0.002	--	--	--	--	--	--
ALPHA-CHLORDANE	--	--	--	0.002	--	--	0.003	--	--	0.0006	0.0007	--
DELTA-BHC	--	--	--	--	--	--	0.003	0.002	--	0.004	0.003	--
ENDOSULFAN II	--	--	--	--	--	--	--	--	--	--	--	--
ENDRIN	--	--	--	--	--	--	--	0.007	--	0.001	0.001	0.002
PCBs (mg/kg)												
AROCLOR-1254	--	--	--	--	--	0.1	0.01 J	--	--	--	0.03	--
AROCLOR-1260	--	--	--	--	--	--	0.03	0.03	0.03	0.03	--	--
TOTAL PCBs	--	--	--	--	--	0.1	0.01 J	0.03	0.03	0.03	0.03	--
PETROLEUM INDICATORS (mg/kg)												
MOTOR OIL RANGE	--	--	--	--	--	--	170 Y	53 Y	35 Y	97 Y	110 Y	--
												25 Y

Notes to table on page T-6.

BUILDINGS 386, 388, AND 390 SUMMARY OF ANALYTICAL RESULTS FOR NONAQUEOUS SAMPLES
ROUND 1 - GROUP II AND III INVESTIGATION
MARE ISLAND, CALIFORNIA

***** UNVALIDATED DATA**

Sample Location ID	B390GB007	B390GB007	B390GB007	B390GB008	B390GB008	B390GB008	B390SS001
Sample Depth (feet BGS)	0.5 - 0.5	3.0 - 4.0	8.0 - 9.0	0.5 - 0.5	3.0 - 4.0	5.0 - 6.0	0.0 - 0.5
Matrix	SOIL						
METALS (mg/kg)							
ALUMINUM	8,530	28,500	45,200 *α	10,000	18,200	20,200	8,120
ANTIMONY	36.4 *α	1.2	4.4	39.1 *α	0.68	0.99	13.4 *α
ARSENIC	--	17.4	33.2	7.9	4.6	8.9	4.3
BARIUM	281	81.3	202	328	1,030	691	258
BERYLLIUM	0.38	0.75	1.4 *1α	0.70	0.62	0.63	2.9 *1α
CADMIUM	--	--	--	7.7 *α	--	--	6.0 *α
CALCIUM	16,700	2,910	6,770	16,400	14,200	3,220	22,100
CHROMIUM	1,660 *α	81.1	318 *α	812 *α	547	648	522 *α
COBALT	42.0	26.9	31.8	36.8	9.9	17.3	29.9
COPPER	3,780 *α	52.7	474 *α	2,000 *α	56.7	54.9	2,640 *α
IRON	196,000	43,500	100,000	132,000	28,000	31,400	165,000
LEAD	2,340 *1α	28.5	282 *α	1,070 *1α	84	532	1,340 *1α
MAGNESIUM	5,410	8,780	13,600	8,460	7,710	7,140	5,480
MANGANESE	3,130 *α	687	1,600	5,510 *α	184	610	3,960 *α
MERCURY	0.32	0.55	0.75	0.22	0.33	0.66	2.8 *
MOLYBDENUM	475	46.4	139	267	309	360	246
NICKEL	1,440 *α	77.0	338 *α	1,140 *α	37.1	69.8	1,190 *α
POTASSIUM	877	2,770	4,360	657	3,650	2,270	929
SILVER	4.9	0.89	2.4	11.3	0.76	1.1	3.9
SODIUM	923	1,500	3,330	804	7,640	1,180	9,910
THALLIUM	1.5	2.0	2.6	1.2	1.6	1.0	--
VANADIUM	44.5	92.5	152	42.8	64.0	78.0	37.6
ZINC	11,700 *α	91.1	1,220 *α	4,320 *α	66.0	154	6,050 *α
VOLATILE ORGANIC COMPOUNDS (mg/kg)							
ACETONE	NA	0.2	0.3	NA	0.1	0.4	NA
METHYLENE CHLORIDE	NA	0.07	0.08	NA	0.02	0.04	NA
SEMOVOLATILE ORGANIC COMPOUNDS (mg/kg)							
2-METHYLNAPHTHALENE	0.8 J	--	--	--	--	--	--
ACENAPHTHENE	0.3 J	--	--	--	--	--	--
ANTHRACENE	--	--	--	0.6 J	--	--	--
BENZO(A)ANTHRACENE	--	--	--	--	0.06 J	--	--
BENZO(A)PYRENE	--	--	--	--	0.06 J	--	--
BENZO(B)FLUORANTHENE	--	--	--	--	0.07 J	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	10	--	0.1 J	1 J	0.04 J	0.06 J	2
BUTYLBENZYLPHthalate	0.5 J	--	--	--	--	--	--
CHRYSENE	--	--	--	--	0.06 J	--	--
DI-N-BUTYLPHthalate	1 J	--	--	--	--	--	--
DIBENZOFURAN	0.3 J	--	--	--	--	--	--
DIMETHYLPHthalate	7	--	--	--	--	--	--
FLUORANTHENE	0.5 J	--	--	--	0.1 J	--	--
FLUORENE	0.2 J	--	--	--	--	--	--
NAPHTHALENE	0.3 J	--	--	--	--	--	--

Notes to table on page T-6.

BUILDINGS 386, 388, AND 390 SUMMARY OF ANALYTICAL RESULTS FOR NONAQUEOUS SAMPLES
 ROUND 1 - GROUP II AND III INVESTIGATION
 MARE ISLAND, CALIFORNIA

*** UNVALIDATED DATA

Sample Location ID	B390GB007	B390GB007	B390GB007	B390GB008	B390GB008	B390GB008	B390SS001
Sample Depth (feet BGS)	0.5 - 0.5	3.0 - 4.0	8.0 - 9.0	0.5 - 0.5	3.0 - 4.0	5.0 - 6.0	0.0 - 0.5
Matrix	SOIL						
SEMITOLATILE ORGANIC COMPOUNDS (mg/kg)							
PHENANTHRENE	0.8 J	--	--	0.5 J	0.06 J	--	0.4 J
PHENOL	1 J	0.08 J	--	0.4 J	0.1 J	0.1 J	--
PYRENE	0.4 J	--	--	--	0.1 J	0.07 J	--
TOTAL SVOCs	23 J	0.08 J	0.1 J	3 J	0.7 J	0.3 J	2 J
PESTICIDES (mg/kg)							
4,4'-DDD	0.01	--	0.002	0.009	--	--	--
4,4'-DDT	0.02	--	0.003	--	--	--	0.04
ALDRIN	0.04	--	0.003	0.02	--	--	--
DELTA-BHC	--	0.004	0.001	--	--	--	--
DIELDRIN	--	--	--	--	--	--	0.09
ENDOSULFAN II	0.03	--	0.004	0.06	--	--	--
ENDRIN	0.09	--	0.01	0.2	--	--	--
ENDRIN KETONE	--	--	--	--	--	--	0.02
GAMMA-CHLORDANE	0.005	--	0.0006	0.009	--	--	0.01
HEPTACHLOR EPOXIDE	--	--	--	--	--	--	0.02
PCBs (mg/kg)							
AROCLOL-1254	2 I	--	0.2	3 I	--	0.006 J	1 I
AROCLOL-1260	--	--	--	--	--	--	0.5 I
TOTAL PCBs	2	--	0.2	3	--	0.006 J	2
PETROLEUM INDICATORS (mg/kg)							
MOTOR OIL RANGE	1,800 Y	16 Y	190 Y	35 Y	--	230 Y	550 Y

Notes: -- = Not detected or rejected, J = Estimated value, NA = Not analyzed, Y = other fuel; chromatogram does not match quantitated fuel

mg/kg = Milligrams per kilogram, BGS = Below ground surface, PCB = Polychlorinated biphenyls

Inorganic results less than 10 are reported to two significant figures, and results greater than 10 are reported to three significant figures.

Organic results less than 10 are reported to one significant figure, and results greater than 10 are reported to two significant figures.

Concentrations shown in bold type are greater than preliminary remediation goal (PRG) for residential use or the Group II/III screening criteria for lead, PCBs, and TPH.

* = Detected metals concentration greater than the ambient concentration (95th percentile)

! = Detected concentrations greater than preliminary remediation goals (PRG) for industrial use.

α = Detected metals concentration greater than the ambient concentration (99th percentile).

Diesel range includes hydrocarbons quantified as diesel and diesel-range unknowns. Gasoline range includes hydrocarbons quantified as gasoline and gasoline-range unknowns.

Motor oil range includes hydrocarbons quantified as motor oil and motor-oil-range unknowns.

Only constituents that were detected in at least one sample are listed.

TABLE 3

BUILDINGS 386, 388, AND 390 SUMMARY OF ANALYTICAL RESULTS FOR AQUEOUS SAMPLES

ROUND 1 - GROUP II AND III INVESTIGATION
MARE ISLAND, CALIFORNIA

*** UNVALIDATED DATA

Sample Location ID	B386GB001	B386GB002	B386GB003	B388GB001	B388GB002	B390GB001	B390GB002	B390GB003	B390GB004	B390GB005	B390GB006	B390GB007
Matrix	WATER											
LOW LEVEL VOLATILE ORGANIC COMPOUNDS (µg/L)												
1,1,2,2-TETRACHLOROETHANE	81	--	--	--	--	--	--	--	--	--	--	--
ACETONE	220 J	10	--	--	12	25	15	6	--	4 J	11	32
BENZENE	--	--	--	130	--	0.7	--	--	--	--	--	--
ETHYLBENZENE	--	--	--	--	--	--	--	--	--	--	--	--
METHYLENE CHLORIDE	220	2	28 J	1 J	0.6 J	1 J	0.6 J	1 J	0.8 J	2	2	3
TOLUENE	--	--	--	--	4	--	0.6 J	--	1	--	--	--
XYLENE (TOTAL)	35 J	--	830	--	1	--	--	--	1	--	--	--
SEMOVOLATILE ORGANIC COMPOUNDS (µg/L)												
2,4-DINITROTOLUENE	--	--	--	--	--	NA	1 J	--	--	--	--	NA
2-METHYLNAPHTHALENE	--	--	--	--	--	NA	--	2 J	25	--	--	NA
ACENAPHTHENE	--	--	--	--	--	NA	--	4 J	43	5 J	--	NA
ANTHRACENE	--	--	--	--	--	NA	--	--	1 J	--	--	NA
BENZO (A) ANTHRACENE	--	--	--	--	--	NA	--	--	--	2 J	--	NA
BENZO (A) PYRENE	--	--	--	--	--	NA	2 J	--	--	--	--	NA
BENZO (B) FLUORANTHENE	--	--	--	--	--	NA	2 J	--	--	--	--	NA
BENZO (G, H, I) PERYLENE	--	--	--	--	--	NA	4 J	--	--	--	--	NA
BENZO (K) FLUORANTHENE	--	--	--	--	--	NA	2 J	--	--	--	--	NA
BIS (2-ETHYLHEXYL) PHTHALATE	--	--	--	--	470	NA	380	--	--	2 J	--	NA
BUTYLBENZYL PHTHALATE	--	--	--	2 J	--	NA	--	--	--	--	--	NA
CARBAZOLE	--	--	--	--	--	NA	--	--	4 J	--	--	NA
DI-N-OCTYL PHTHALATE	--	--	--	--	--	NA	7 J	--	--	--	--	NA
DIBENZ (A, H) ANTHRACENE	--	--	--	--	--	NA	7 J	--	--	--	--	NA
DIBENZOFURAN	--	--	--	--	--	NA	--	1 J	21	4 J	--	NA
DIETHYL PHTHALATE	--	--	--	--	--	NA	--	--	--	5 J	--	NA
FLUORANTHENE	--	--	--	--	--	NA	--	--	2 J	1 J	--	NA
FLUORENE	--	--	--	--	--	NA	--	1 J	21	5 J	--	NA
INDENO (1,2,3-CD) PYRENE	--	--	--	--	--	NA	4 J	--	--	--	--	NA
NAPHTHALENE	--	--	--	--	--	NA	--	2 J	3 J	2 J	--	NA
PHENANTHRENE	--	--	--	--	--	NA	--	--	--	12 *	--	NA
PHENOL	6 J	--	--	--	5 J	NA	--	--	--	16	--	NA
PYRENE	--	--	--	--	--	NA	--	--	1 J	--	--	NA
TOTAL SVOCs	6 J	--	--	--	7 J	470	NA	410 J	10 J	130 J	42 J	--
PETROLEUM INDICATORS (mg/L)												
DIESEL RANGE	27 Y	0.2	NA	--	NA	NA	NA	--	--	0.4 Y	0.1 Y	NA
GASOLINE RANGE	--	--	NA	--	NA	--	--	--	--	0.2	--	NA
MOTOR OIL RANGE	40 Y	0.2	NA	--	NA	NA	NA	--	--	--	0.3 Y	NA

Notes to table on page T-2.

BUILDINGS 386, 388, AND 390 SUMMARY OF ANALYTICAL RESULTS FOR AQUEOUS SAMPLES

ROUND 1 - GROUP II AND III INVESTIGATION

*** UNVALIDATED DATA

MARE ISLAND, CALIFORNIA

Sample Location ID	B390GB007	B390GB008
Matrix	WATER	WATER
LOW LEVEL VOLATILE ORGANIC COMPOUNDS (µg/L)		
ACETONE	NA	8
METHYLENE CHLORIDE	NA	2
SEMOVOLATILE ORGANIC COMPOUNDS (µg/L)		
2,4-DIMETHYLPHENOL	74	--
4-METHYLPHENOL	13 J	--
BIS(2-ETHYLHEXYL) PHTHALATE	--	1 J
TOTAL SVOCs	87 J	1 J
PETROLEUM INDICATORS (mg/L)		
MOTOR OIL RANGE	NA	1 Y

Notes: -- = Not detected or rejected, J = Estimated value, NA = Not analyzed, Y = other fuel, chromatogram does not match quantitated fuel

µg/L = Micrograms per liter, mg/L = Milligram per liter, BGS = Below ground surface

Organic results less than 10 are reported to one significant figure, and results greater than 10 are reported to two significant figures

a = Detected metal concentrations greater than the ambient groundwater concentration (95th percentile)

* = Detected concentrations greater than the U.S. EPA National Ambient Water Quality Criteria for Saltwater Aquatic Life Protection, continuous concentration (4-day average).

= Detected metal concentrations greater than the ambient groundwater concentration (99th percentile)

Diesel range includes hydrocarbons quantified as diesel and diesel-range unknowns Gasoline range includes hydrocarbons quantified as gasoline and gasoline-range unknowns

Motor oil range includes hydrocarbons quantified as motor oil and motor-oil-range unknowns

Only constituents that were detected in at least one sample are listed

BUILDINGS 386, 388, AND 390 PHASE I/II RI STATISTICAL SUMMARY OF SOIL ANALYSES
GROUP II/III INVESTIGATION
MARE ISLAND, CALIFORNIA

Analyte	Number of Detections/Analyses	Maximum Detected Conc. (mg/kg)	Average of Detected Conc. (mg/kg)	Number of Samples With Conc. Greater than the PRG or Group II/III Screening Value (mg/kg) ¹	Number of Samples With Conc. Greater Than PRG and the 95th Ambient ¹	Number of Discrete Loc. With Sample Conc. Greater Than PRG and the 95th Ambient ¹	Number of Samples With Conc. Greater Than PRG and the 99th Ambient ¹	Number of Discrete Loc. With Sample Conc. Greater Than PRG and the 99th Ambient ¹	PRG or Group II/III Screening Value (mg/kg) ¹	95th Ambient Value (mg/kg)	99th Ambient Value (mg/kg)
METALS											
ALUMINUM	6/6	45,000	32,000	0	0	0	0	0	.77,000	35,000	42,000
ANTIMONY	6/44	5	4	0	0	0	0	0	31	8.5	12
ARSENIC	2/6	8	7	2	0	0	0	0	0.38	36	44
BARIUM	6/6	250	200	0	NA	0	NA	0	5,300	NA	NA
BERYLLIUM	6/6	3	2	6	4	4	4	0	0.14	0.9	1.1
CADMIUM	4/44	7	5	0	0	0	0	0	9	5.2	5.6
CALCIUM	44/44	280,000	38,000	NP	NE	NE	NE	NE	NP	NA	NA
CHROMIUM	44/44	200	130	0	0	0	0	0	.77,000	140	160
CHROMIUM VI	0/6	ND	ND	0	NA	0	NA	0	0.2	NA	NA
COBALT	2/44	17	13	0	NA	0	NA	0	4,600	NA	NA
COPPER	44/44	450	77	0	0	0	0	0	2,800	120	150
IRON	44/44	73,000	42,000	NP	NE	NE	NE	NE	NP	NA	NA
LEAD	47/50	2,400	200	8	8	7	8	7	242	59	NA
MAGNESIUM	6/6	8,200	7,100	NP	NE	NE	NE	NE	NP	NA	NA
MANGANESE	44/44	2,000	570	0	0	0	0	0	3,200	1,600	2,400
MERCURY	0/6	ND	ND	0	0	0	0	0	23	2	10
MOLYBDENUM	0/44	ND	ND	0	NA	0	NA	0	380	NA	NA
NICKEL	44/44	120	69	0	0	0	0	0	150	130	150
POTASSIUM	44/44	16,000	9,500	NP	NE	NE	NE	NE	NP	NA	NA
SELENIUM	0/6	ND	ND	0	NA	0	NA	0	380	NA	NA
SILVER	3/44	6	4	0	NA	0	NA	0	380	NA	NA
SODIUM	5/6	5,900	4,400	NP	NE	NE	NE	NE	NP	NA	NA
THALLIUM	0/6	ND	ND	0	NA	0	NA	0	54	NA	NA
TIN	38/38	79	17	0	NA	0	NA	0	46,000	NA	NA
TITANIUM	38/38	8,200	4,300	NP	NE	NE	NE	NE	NP	NA	NA
VANADIUM	43/44	220	120	0	0	0	0	0	540	190	220
ZINC	44/44	3,400	240	0	0	0	0	0	23,000	230	270
VOLATILE ORGANIC COMPOUNDS											
2-BUTANONE	1/6	0.02	0.02	0	NA	0	NA	0	7,100	NA	NA
ACETONE	2/6	0.1	0.1	0	NA	0	NA	0	2,100	NA	NA
CARBON DISULFIDE	1/6	0.005	0.005	0	NA	0	NA	0	7.5	NA	NA
ETHYLBENZENE	2/44	30	15	0	NA	0	NA	0	230	NA	NA
TOLUENE	2/44	0.1	0.1	0	NA	0	NA	0	790	NA	NA
TRICHLOROETHENE	4/6	0.03	0.01	0	NA	0	NA	0	3.2	NA	NA

BUILDINGS 386, 388, AND 390 PHASE I/II RI STATISTICAL SUMMARY OF SOIL ANALYSES
GROUP II/III INVESTIGATION
MARE ISLAND, CALIFORNIA

Analyte	Number of Detections/Analyses	Maximum Detected Conc. (mg/kg)	Average of Detected Conc. (mg/kg)	Number of Samples With Conc. Greater than the PRG or Group II/III Screening Value (mg/kg) ¹	Number of Samples With Conc. Greater Than PRG and the 95th Ambient ¹	Number of Discrete Loc. With Sample Conc. Greater Than PRG and the 95th Ambient ¹	Number of Samples With Conc. Greater Than PRG and the 99th Ambient ¹	Number of Discrete Loc. With Sample Conc. Greater Than PRG and the 99th Ambient ¹	PRG or Group II/III Screening Value (mg/kg) ¹	95th Ambient Value (mg/kg)	99th Ambient Value (mg/kg)
VOLATILE ORGANIC COMPOUNDS											
XYLENE (TOTAL)	3/44	47	16	0	NA	0	NA	0	320	NA	NA
PESTICIDES/PCBs											
AROCLOR-1260	3/30	0.7	0.4	0	NA	0	NA	0	1	NA	NA
PCBs											
TOTAL PCBs	3/30	0.7	0.4	0	NA	0	NA	0	1	NA	NA
PETROLEUM INDICATORS											
DIESEL RANGE GASOLINE RANGE TRPH	7/44 4/44 1/4	13,000 340 82	1,900 89 62	1 1 NP	NA NA NE	1 1 NE	NA NA NE	1 1 NE	400 150 NP	NA NA NA	NA NA NA
TOTAL ORGANIC CARBON											
TOC	2/2	3,300	2,600	NP	NE	NE	NE	NE	NP	NA	NA

Notes:

1. If no ambient value exists, the number of discrete locations with sample concentrations greater than the PRG is shown.
2. Group II/III screening criteria are shown for lead, PCBs, and TPH only.

mg/kg = milligrams per kilogram

PRG = U.S. EPA preliminary remediation goal for residential use (EPA 1996).

Ambient = Estimated ambient metal concentrations in fill soils.

ND = Not detected

NP = No PRG has been established.

NA = No ambient limit has been established.

NE = No PRG or ambient limit has been established.

TRPH = Total recoverable petroleum hydrocarbon

Inorganic results less than 10 are reported to two significant figures, and results greater than 10 are reported to three significant figures.

**BUILDINGS 386, 388, AND 390 PHASE I/II RI STATISTICAL SUMMARY OF SOIL ANALYSES
GROUP II/III INVESTIGATION
MARE ISLAND, CALIFORNIA**

Notes (continued):

Organic results less than 10 are reported to one significant figure, and results greater than 10 are reported to two significant figures.

BUILDINGS 386, 388, AND 390 PHASE I/II RI-SUMMARY OF ANALYTICAL RESULTS FOR NONAQUEOUS SAMPLES
GROUP II AND III INVESTIGATION
MARE ISLAND, CALIFORNIA

Sample Location ID	21-SB01IT	21-SB01IT	21-SB02IT	21-SB02IT	21GB001	21GB001	21GB001 ^S	21GB001	21GB002	21GB002	21GB002 ^S	21GB002
Sample Depth (feet BGS)	2.5 - 3.0	4.0 - 4.5	2.0 - 2.5	4.0 - 4.5	0.8 - 1.5	2.5 - 3.0	4.8 - 6.0	8.5 - 9.0	1.0 - 1.5	2.5 - 3.0	4.8 - 6.0	8.5 - 9.0
Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
METALS (mg/kg)												
ALUMINUM	NA	NA	NA	NA	NA	NA	45,000 J * ^a	NA	NA	NA	37,100 J *	NA
ARSENIC	NA	NA	NA	NA	NA	NA	5.5 J 1	NA	NA	NA	--	NA
BARIUM	NA	NA	NA	NA	NA	NA	251	NA	NA	NA	229	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	2.5 *1 ^a	NA	NA	NA	2.5 *1 ^a	NA
CADMIUM	NA	NA	NA	NA	NA	4.8 J	--	--	7.1 J * ^a	--	--	--
CALCIUM	NA	NA	NA	NA	NA	60,400 J	8,810 J	5,940	24,700 J	7,630 J	5,940	40,200 J
CHROMIUM	NA	NA	NA	NA	NA	135 J	149 J *	87.5	137 J	165 J * ^a	71.9	160 J * ^a
COPPER	NA	NA	NA	NA	NA	250 * ^a	56.9	25.0	32.4	454 * ^a	63.3	23.3
IRON	NA	NA	NA	NA	NA	50,500	45,400	39,300	37,400	59,400	50,300	35,600
LEAD	272 * ^a	204 * ^a	193 * ^a	947 * ^a	1,640 *1 ^a	49 1	49 1	9.1 J	--	1,580 *1 ^a	65.9 * ^a	8.3 J
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	7,970	NA	NA	NA	7,380
MANGANESE	NA	NA	NA	NA	NA	469	356	411	833	646	382	405
NICKEL	NA	NA	NA	NA	NA	84.6	80.1	78.5	94.5	92 1	89.1	78.5
POTASSIUM	NA	NA	NA	NA	NA	10,600 J	12,600 J	2,410	6,230 J	10,900 J	13,200 J	1,780
SILVER	NA	NA	NA	NA	NA	6.2 J	--	--	NA	NA	NA	--
SODIUM	NA	NA	NA	NA	NA	NA	NA	4,560	NA	NA	NA	4,410
TIN	NA	NA	NA	NA	NA	40.3	11.2	10.7	15.0	38.3	12.3	14.2
TITANIUM	NA	NA	NA	NA	NA	4,030	4,500	4,450	3,590	4,170	4,610	4,400
VANADIUM	NA	NA	NA	NA	NA	136 J	165 J	93 1	92.7 J	125 J	164 J	82.6
ZINC	NA	NA	NA	NA	NA	2,020 * ^a	125	63.3	59 4	3,390 * ^a	130	57.8
VOLATILE ORGANIC COMPOUNDS (mg/kg)												
ACETONE	NA	NA	NA	NA	NA	NA	--	NA	NA	NA	0.09	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	--	NA	NA	NA	0.005 J	NA
ETHYLBENZENE	--	30	--	--	--	--	--	NA	--	NA	--	--
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	0.01 J	NA	NA	NA	0.004 J	NA
XYLENE (TOTAL)	--	47	--	--	--	--	--	--	--	--	--	--
SEMOVOLATILE ORGANIC COMPOUNDS	NA	NA	NA	NA	NA	NA	--	NA	NA	NA	--	NA
PESTICIDES	--	--	--	--	NA	NA	--	NA	NA	NA	--	NA
PCBs (mg/kg)												
AROCOLOR-1260	--	--	--	0.2	0.2	--	--	--	--	--	--	--
TOTAL PCBs	--	--	--	0.2	0.2	--	--	--	--	--	--	--
PETROLEUM INDICATORS (mg/kg)												
DIESEL RANGE	46	13,000	55	31	--	--	--	--	--	--	--	--
GASOLINE RANGE	--	340	--	1	--	--	--	--	--	--	--	--
pH												
pH	NA	NA	NA	NA	NA	NA	8.6	NA	NA	NA	8.9	NA

Notes to table on page T-3.

BUILDINGS 386, 388, AND 390 PHASE I/II RI SUMMARY OF ANALYTICAL RESULTS FOR NONAQUEOUS SAMPLES
GROUP II AND III INVESTIGATION
MARE ISLAND, CALIFORNIA

Sample Location ID	21GB003	21GB003 S	21GB003	21GB003	21GB004	21GB004	21GB004	21GB004	21GB005	21GB005	21GB005	21GB005
Sample Depth (feet BGS)	2.0 - 2.5	2.8 - 4.0	5.5 - 6.0	8.5 - 9.0	18 - 2.3	4.0 - 4.5	5.5 - 6.0	8.0 - 8.5	0.5 - 1.0	2.5 - 3.0	5.5 - 6.0	8.5 - 9.0
Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
METALS (mg/kg)												
ALUMINUM	NA	20,100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	--	--	--	--	--	3.7 J	--	--	3.5 J	--	--	--
ARSENIC	NA	8.2 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	223 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	2.0 *1α	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMUM	--	--	--	--	--	3.4 J	--	--	--	--	--	--
CALCIUM	6,920 J	3,500	9,680 J	34,600 J	47,500 J	18,200 J	9,890 J	8,250 J	5,680 J	28,100 J	10,200 J	35,000 J
CHROMIUM	87.5 J	32.7 J	152 J *	149 J *	202 J *α	91.2 J	171 J *α	152 J *	94.6 J	191 J *α	157 J *	138 J
COPPER	25.2	21.4	34.7	21.7	72.0	40.5	29.5	28.4	17.5	122 *	37.3	31.8
IRON	37,700	34,000	44,200	40,600	55,800	31,900	40,000	39,600	22,600	39,900	39,400	37,200
LEAD	10.6	12.2	14.0	16.5	15.7	17.0	15.2	9.1 J	11.5	167 *α	18.3	12.0
MAGNESIUM	NA	6,470	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	1,020	1,170	659	966	982	2,010 *	877	604	347	756	600	711
NICKEL	23.4	44.0 *	75.3	70.4	53.8	57.1	74.7	66.9	24.9	68.7	54.1	59.7
POTASSIUM	14,600 J	2,740	8,240 J	7,640 J	6,670 J	15,600 J	8,000 J	7,970 J	14,200 J	10,700 J	8,560 J	7,840 J
SILVER	3.8 J	--	--	--	--	--	--	--	--	--	--	--
TIN	11.9	11.5	12.0	16.6	15.1	12.5	12.7	14.3	15.2	15.9	13.4	12.4
TITANIUM	3,610	3,880	4,420	4,350	8,200	3,420	4,130	3,320	4,180	4,360	4,090	
VANADIUM	79.8 J	60.9	130 J	124 J	218 J *	113 J	108 J	103 J	63.8 J	98.9 J	135 J	98.8 J
ZINC	61.0	71.9	58.6	54.5	208	98.7	63.6	57.6	39.4	171	75.5	53.8
VOLATILE ORGANIC COMPOUNDS (mg/kg)												
TOLUENE	--	--	0.003 J	NA	NA	0.1	--	--	--	--	--	--
TRICHLOROETHENE	NA	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	--	--	--	--	0.7	--	--	--	--	--	--	--
SEMOVOLATILE ORGANIC COMPOUNDS												
PESTICIDES	NA	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs	--	--	--	--	--	--	--	--	--	--	--	--
PETROLEUM INDICATORS	--	--	--	--	--	--	--	--	--	--	--	--
PH												
PH	NA	8.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes to table on page T-3.

BUILDINGS 386, 388, AND 390 PHASE I/II RI SUMMARY OF ANALYTICAL RESULTS FOR NONAQUEOUS SAMPLES
GROUP II AND III INVESTIGATION
MARE ISLAND, CALIFORNIA

Sample Location ID	21GB006	21GB006	21GB006 ^S	21GB006
Sample Depth (feet BGS)	1.5 - 2.0	2.5 - 3.0	4.8 - 6.0	8.5 - 9.0
Matrix	SOIL	SOIL	SOIL	SOIL
METALS (mg/kg)				
ALUMINUM	NA	NA	43,600 J *α	NA
ANTIMONY	4.5 J	--	--	--
BARIUM	NA	NA	227	NA
BERYLLIUM	NA	NA	2.3 *1α	NA
CALCIUM	10,600 J	7,770 J	5,920	170,000 J
CHROMIUM	155 J *	156 J *	80.2	118 J
COPPER	172 *α	72.5	23.8	27.5
IRON	45,300	52,300	38,200	39,100
LEAD	781 *α	112 *α	5.7 J	9.7 J
MAGNESIUM	NA	NA	8,190	NA
MANGANESE	392	359	467	903
NICKEL	81.5	88.3	74.6	119
POTASSIUM	15,000 J	13,900 J	3,030	7,020 J
SODIUM	NA	NA	3,000	NA
TIN	28.8	15.8	14.9	16.6
TITANIUM	4,270	4,770	4,460	3,150
VANADIUM	154 J	199 J *	83.3	--
ZINC	529 *α	231 *	62.2	83.2
VOLATILE ORGANIC COMPOUNDS (mg/kg)				
2-BUTANONE	NA	NA	0.02	NA
ACETONE	NA	NA	0.1	NA
TRICHLOROETHENE	NA	NA	0.03	NA
SEMIVOLATILE ORGANIC COMPOUNDS	NA	NA	--	NA
PESTICIDES	NA	NA	--	NA
PCBs	--	--	--	--
PETROLEUM INDICATORS (mg/kg)				
DIESEL RANGE	84 J	--	--	--
GASOLINE RANGE	--	11 J	--	--
TRPH	NA	NA	82	NA
pH				
pH	NA	NA	9.0	NA

Notes: -- = Not detected or rejected, J = Estimated value, NA = Not analyzed, mg/kg = Milligrams per kilogram, BGS = Below ground surface, TRPH = Total recoverable petroleum hydrocarbons, PCB = Polychlorinated biphenyls

Analytical results for the site indicate that chromium VI was not detected; for the purposes of this RI, chromium is assumed to be chromium III.

Inorganic results less than 10 are reported to two significant figures, and results greater than 10 are reported to three significant figures.

Organic results less than 10 are reported to one significant figure, and results greater than 10 are reported to two significant figures.

Concentrations shown in bold type are greater than preliminary remediation goal (PRG) for residential use or the Group II/III screening criteria for lead, PCBs, and TPH

BUILDINGS 386, 388, AND 390 PHASE I/II RI SUMMARY OF ANALYTICAL RESULTS FOR NONAQUEOUS SAMPLES
GROUP II AND III INVESTIGATION
MARE ISLAND, CALIFORNIA

Notes (continued).

* = Detected metals concentration greater than the ambient concentration (95th percentile).

! = Detected concentrations greater than preliminary remediation goals (PRG) for industrial use.

α = Detected metals concentration greater than the ambient concentration (99th percentile).

Diesel range includes hydrocarbons quantified as diesel and diesel-range unknowns. Gasoline range includes hydrocarbons quantified as gasoline and gasoline-range unknowns.

Motor oil range includes hydrocarbons quantified as motor oil and motor-oil-range unknowns.

Only constituents that were detected in at least one sample are listed.

s - The sample was split for analysis by both on-site and off-site laboratories. Where both laboratories analyzed the sample for the sample constituent, the average of the two results is shown; if the constituent was not detected in one of the two analyses, only the detected result is shown.

BUILDINGS 386, 388, AND 390 PHASE I/II RI SUMMARY OF ANALYTICAL RESULTS FOR AQUEOUS SAMPLES
GROUP II AND III INVESTIGATION
MARE ISLAND, CALIFORNIA

Sample Location ID	21GB004	21GB006	21GB006
Matrix	WATER	WATER	WATER
METALS (µg/L)			
ALUMINUM	7,380 #α	24,100 #α	NA
ARSENIC	--	12.7 J	NA
BARIUM	171	499	NA
BERYLLIUM	--	1.1	NA
CALCIUM	63,200	63,600	NA
CHROMIUM	16.7	43.3 α	NA
COPPER	71.1 *α	23.3 *	NA
IRON	12,000	28,700	NA
LEAD	79.4 α*#	17.8 J *α	NA
MAGNESIUM	39,800	55,200	NA
MANGANESE	2,960	1,900	NA
MOLYBDENUM	--	61.1 #α	NA
NICKEL	118 α*#	75.6 *α	NA
POTASSIUM	8,560	27,600	NA
SODIUM	1,030,000	829,000	NA
ZINC	136 *	71.1	NA
VOLATILE ORGANIC COMPOUNDS (µg/L)			
ACETONE	--	12	NA
SEMITOLATILE ORGANIC COMPOUNDS (µg/L)			
PHENOL	--	NA	2 J
TOTAL SVOCs	--	NA	2 J
PCBs	--	NA	NA
PETROLEUM INDICATORS	--	--	--

Notes: -- = Not detected or rejected, J = Estimated value, NA = Not analyzed, µg/L = Micrograms per liter, mg/L = Milligram per liter, BGS = Below ground surface

TRPH = Total recoverable petroleum hydrocarbons, PCB = Polychlorinated biphenyls

Analytical results for the site indicate that chromium VI was not detected; for the purposes of this RI, chromium is assumed to be chromium III.

Inorganic results less than 10 are reported to two significant figures, and results greater than 10 are reported to three significant figures.

Organic results less than 10 are reported to one significant figure, and results greater than 10 are reported to two significant figures.

α = Detected metal concentrations greater than the ambient groundwater concentration (95th percentile).

* = Detected concentrations greater than the U.S. EPA National Ambient Water Quality Criteria for Saltwater Aquatic Life Protection, continuous concentration (4-day average)

= Detected metal concentrations greater than the ambient groundwater concentration (99th percentile).

Diesel range includes hydrocarbons quantified as diesel and diesel-range unknowns. Gasoline range includes hydrocarbons quantified as gasoline and gasoline-range unknowns.

Motor oil range includes hydrocarbons quantified as motor oil and motor-oil-range unknowns

Only constituents that were detected in at least one sample are listed